Bureau of Land Management

West Desert Fire Zone Fuels Program

Otter Creek Aspen Regeneration Project

On July 15, 2009, the Bureau of Land Management West Desert Fire Zone Fuels Program conducted a prescribed burn 10 miles northwest of the town of Randolph, Utah. Prior to the burn, the West Desert District fuels, forestry, and range programs identified about 1,000 acres in northeastern Utah where conifers had taken over stands of mature aspen. Once established, conifers eventually shade out mature aspen trees and severely limit the possibility of regeneration. The goal of the burn was to remove the conifers and stimulate aspen regeneration.

Figure 1. Ignition along the bottom of the slope using the UWF terra torch. 3:52pm.

Thirteen units totaling 34 acres were selected for this initial testing phase to compare aspen regeneration in burned vs. cut stands and assess the impacts of grazing on new aspen shoots. Ultimately, several tools—including prescribed fire and mechanical treatments—will be used to treat an average of 50 - 100 acres per season for the next 10 years. Results from varied applications will be examined to determine best management practices for larger landscape level projects in the future.

Finding optimal conditions for the burn proved difficult. Northeastern Utah had over 300% above normal precipitation just one month prior to the Otter Creek Aspen Regeneration Project prescribed burn. However, after just two weeks of dry weather, fuel moistures, weather conditions and resources were in line to achieve desired results. The prescription was designed to be carried out in early summer when adjacent fuels (mountain brush) were wet enough to confine fire within the targeted stands while fuels within the burn units were dry enough to sustain fire. Because of prolonged spring precipitation the burn ended up occurring in mid-summer. However, the combination of ideal fuel moistures and weather conditions provided the optimal burn window to mimic early summer conditions. Within the stands, fire was active in the surface timber litter and dead material. Single and group tree torching was common. Overall, the ecological objectives were met. Encroaching conifer were successfully removed which should result in prolific aspen regeneration.

Figure 2. Slope pulls the fire upward through the unit. 4:07pm.

Figure 3. One day post-burn. The fire successfully removed the conifers which should result in prolific aspen regeneration.

The Otter Creek Aspen Regeneration Project was designed in conjunction with the Uinta-Wasatch-Cache National Forest (UWF), State of Utah School and Institutional Trust Lands Administration (SITLA), private landowners, and the Utah Watershed Restoration Initiative (WRI). The UWF has a similar project in place to treat conifer encroached aspen stands on land to the west and south of this project. Recognizing the priority of treatments like the Otter Creek Aspen Regeneration Project, WRI has generously granted $18,000 toward fencing materials to protect new aspen shoots from subsequent grazing pressure.

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